

IN THE CLAIMS

Please amend the status of the claims to that as indicated below:

Claims 1-27 (canceled)

28. (currently amended) A packaging apparatus, comprising:

a central control unit;

a plurality of sensors;

a plurality of actuators;

a drive system;

means for recording in digital format actual values of said plurality of sensors, actual values of said plurality of actuators and actual values of said drive system, wherein data of slow running processes are only recorded in individual time-spaced cycle pulses, so that only the data of fast running processes are contained in cycle pulses contained in between;

means for determining setpoint values or control commands for said drive system via measurements of said actual values of said drive system taken for a plurality of cycles;

means for transmission in digital format of said setpoint values of control commands for said drive system between said drive system and said central control unit via a transmission protocol from said central control unit via said means for data transmission to said plurality of actuators or said drive system;

means for data transmission between said plurality of sensors, said plurality of

actuators, said drive system and said central control unit of said actual values of said plurality of sensors, said actual values of said plurality of actuators and said actual values of said drive system recorded by said means for recording in digital format, said means for data transmission including ~~wireless transmission means~~ and a transmission protocol ~~for said wireless transmission means~~ operating cyclically with short cycle times and performing a synchronization of said plurality of sensors, said plurality of actuators and said drive system with time-dependent action and further providing said actual values and said setpoint values or control commands for said drive system in each cycle and accuracy of said synchronization in a microsecond range;

means for evaluating data received by said central control unit from said plurality of sensors, said plurality of actuators and said drive system; [[and,]]

means for eliminating errors in said means for data transmission and said means for transmission in said digital format; and,

a time window assigned to each cycle pulse of said cycle pulses wherein, despite data transmission, comprises a residual time, which is able to be used for transmitting optional information.

29. (previously presented) The packaging apparatus according to Claim 28, wherein said drive system includes a servo motor.

30. (previously presented) The packaging apparatus according to Claim 28, wherein said short cycle times are in a millisecond pulse.

31. (previously presented) The packaging apparatus according to Claim 28, wherein said means for eliminating errors in said means for data transmission and said means for transmission in said digital format includes an HDLC procedure.

32. (previously presented) The packaging apparatus according to Claim 28, wherein said drive system is controlled by specifying position or velocity data at associated points in time.

Claims 33 – 34 (canceled)

35. (previously presented) The packaging apparatus according to Claim 28, wherein said means for data transmission takes place bidirectionally.

36. (previously presented) The packaging apparatus according to Claim 28, wherein said means for data transmission takes place unidirectionally.

37. (previously presented) The packaging apparatus according to Claim 28, further comprising a programming unit connected to said central control unit.

Claims 38 – 41 (canceled)

42. (currently amended) The packaging apparatus according to Claim 28, wherein said means for eliminating errors in said means for data transmission includes data redundancy in said transmission protocol, ~~for said wireless transmission means.~~

43. (new) A packaging apparatus, comprising:

a central control unit;

a plurality of sensors;

a plurality of actuators;

a drive system;

means for recording in digital format actual values of said plurality of sensors,
actual values of said plurality of actuators and actual values of said drive system;

means for determining setpoint values or control commands for said drive system
via measurements of said actual values of said drive system taken for a plurality of
cycles;

means for transmission in digital format of said setpoint values of control
commands for said drive system between said drive system and said central control unit
via a transmission protocol from said central control unit via said means for data trans-
mission to said plurality of actuators or said drive system;

means for data transmission between said plurality of sensors, said plurality of
actuators, said drive system and said central control unit of said actual values of said
plurality of sensors, said actual values of said plurality of actuators and said actual values
of said drive system recorded by said means for recording in digital format, said means
for data transmission including a transmission protocol operating cyclically with short
cycle times and performing a synchronization of said plurality of sensors, said plurality of
actuators and said drive system with time-dependent action and further providing said
actual values and said setpoint values or control commands for said drive system in each

cycle and accuracy of said synchronization in a microsecond range;

means for evaluating data received by said central control unit from said plurality of sensors, said plurality of actuators and said drive system; and,

means for eliminating errors in said means for data transmission and said means for transmission in said digital format includes means for effecting a shutdown of said packaging apparatus in the event of a fault, said means for effecting a shutdown including means for effecting a synchronous braking and, upon start-up of said packaging apparatus, effecting a synchronous acceleration of said drive system.

44. (new) The packaging apparatus according to Claim 43, wherein said drive system includes a servo motor.

45. (new) The packaging apparatus according to Claim 43, wherein said short cycle times are in a millisecond pulse.

46. (new) The packaging apparatus according to Claim 43, wherein said means for eliminating errors in said means for data transmission and said means for transmission in said digital format includes an HDLC procedure.

47. (new) The packaging apparatus according to Claim 43, wherein said drive system is controlled by specifying position or velocity data at associated points in time.

48. (new) The packaging apparatus according to Claim 43, wherein said means for data transmission takes place bidirectionally.

49. (new) The packaging apparatus according to Claim 43, wherein said means for data transmission takes place unidirectionally.

50. (new) The packaging apparatus according to Claim 43, further comprising a programming unit connected to said central control unit.

51. (new) The packaging apparatus according to Claim 43, wherein data of slow running processes are only recorded in individual time-spaced cycle pulses, so that only the data of fast running processes are contained in cycle pulses contained in between.

52. (new) The packaging apparatus according to Claim 43, wherein said means for effecting a shutdown of said packaging apparatus in the event of a fault includes a modem for remote diagnosis of the fault.

53. (new) The packaging apparatus according to Claim 43, wherein said means for effecting a shutdown of said packaging apparatus in the event of a fault includes a modem for remote diagnosis of the fault.

54. (new) The packaging apparatus according to Claim 43, wherein said means for eliminating errors in said means for data transmission further includes data redundancy in said transmission protocol.